## Message

From: Cosler, Doug [Doug.Cosler@TechLawInc.com]

**Sent**: 6/15/2017 7:03:40 PM

To: Brasaemle, Karla [Karla.Brasaemle@TechLawInc.com]; d'Almeida, Carolyn K. [dAlmeida.Carolyn@epa.gov]; Dan

Pope [DPope@css-inc.com]; Jennings, Eleanor [Eleanor.Jennings@parsons.com]

CC: Davis, Eva [Davis.Eva@epa.gov]; Bo [bo@praxis-enviro.com]; Wayne Miller [Miller.Wayne@azdeq.gov]

Subject: RE: Draft Williams AFB Checklist, Version 10

That works

From: Brasaemle, Karla

Sent: Thursday, June 15, 2017 3:02 PM

To: Cosler, Doug <Doug.Cosler@TechLawInc.com>; 'd'Almeida, Carolyn K.' <dAlmeida.Carolyn@epa.gov>; Dan Pope

<DPope@css-inc.com>; Jennings, Eleanor <Eleanor.Jennings@parsons.com>

Cc: Davis, Eva <Davis.Eva@epa.gov>; Bo <bo@praxis-enviro.com>; Wayne Miller <Miller.Wayne@azdeq.gov>

Subject: RE: Draft Williams AFB Checklist, Version 10

I think the code should end 6383....(I've had calls using this number before).

Karla Brasaemle, P.G., TechLaw, Inc. 415-762-0566

From: Cosler, Doug

Sent: Thursday, June 15, 2017 12:01 PM

To: 'd'Almeida, Carolyn K.' <<u>dAlmeida.Carolyn@epa.gov</u>>; Dan Pope <<u>DPope@css-inc.com</u>>; Jennings, Eleanor

< Eleanor. Jennings@parsons.com >

**Cc:** Davis, Eva <<u>Davis.Eva@epa.gov</u>>; Bo <<u>bo@praxis-enviro.com</u>>; Brasaemle, Karla <<u>Karla.Brasaemle@TechLawInc.com</u>>; Wayne Miller <<u>Miller.Wayne@azdeq.gov</u>>

Subject: RE: Draft Williams AFB Checklist, Version 10

I'm having trouble with the conference call code. Is it correct]?

From: d'Almeida, Carolyn K. [mailto:dAlmeida.Carolyn@epa.gov]

**Sent:** Thursday, June 15, 2017 2:42 PM

To: Dan Pope <DPope@css-inc.com</pre>; Jennings, Eleanor <Eleanor.Jennings@parsons.com</pre>

**Cc:** Davis, Eva <<u>Davis.Eva@epa.gov</u>>; Cosler, Doug <<u>Doug.Cosler@TechLawInc.com</u>>; Bo <<u>bo@praxis-enviro.com</u>>;

Brasaemle, Karla < Karla.Brasaemle@TechLawInc.com >; Wayne Miller < Miller.Wayne@azdeq.gov >

Subject: RE: Draft Williams AFB Checklist, Version 10

I'm fine with adding any assumptions or critical elements you feel should be mentioned in what we are asking them to do, just want to remove anything that could be construed as passing judgement on what they did or did not do. Also, I think there are far too many "efficacies" in that statement and some should be deleted or changed.

Carolyn d'Almeida Remedial Project Manager Federal Facilites Branch (SFD 8-1) US EPA Region 9 (415) 972-3150

<sup>&</sup>quot;Because a waste is a terrible thing to mind..."

From: Dan Pope [mailto:DPope@css-inc.com]
Sent: Thursday, June 15, 2017 11:36 AM

**To:** d'Almeida, Carolyn K. <<u>dAlmeida.Carolyn@epa.gov</u>>; Jennings, Eleanor <<u>Eleanor.Jennings@parsons.com</u>> **Cc:** Davis, Eva <<u>Davis.Eva@epa.gov</u>>; Cosler, Doug <<u>Doug.Cosler@TechLawInc.com</u>>; Bo <<u>bo@praxis-enviro.com</u>>;

Brasaemle, Karla < Karla. Brasaemle@TechLawlnc.com >; Wayne Miller < Miller. Wayne@azdeq.gov >

Subject: RE: Draft Williams AFB Checklist, Version 10

Note that "these assumptions" now has no referent. The text discussing the assumptions was taken out.

Aid, not aide.

From: d'Almeida, Carolyn K. [mailto:dAlmeida.Carolyn@epa.gov]

Sent: Thursday, June 15, 2017 11:42 AM

To: Jennings, Eleanor

Cc: Davis, Eva; Dan Pope; Cosler, Doug; Bo; Brasaemle, Karla; Wayne Miller

**Subject:** RE: Draft Williams AFB Checklist, Version 10

Mozart was criticized for "too many notes". It's a beautiful composition, but sometimes the simplest tune can be most profound. How about:

The EBR modeling efforts conducted by the AF, while perhaps useful from an operational standpoint, do not—Please provide a sufficiently extensive and detailed evaluation of important factors determining the efficacy and rate of COC biodegradation and depletion of COCs from the LNAPL source materials, incorporating. For instance, the AF EBR modeling efforts assume instantaneous mass transfer of COCs from the LNAPL to groundwater, which likely significantly over-estimates actual rates of transfer of COCs, therefore leading to over-estimates of rates of COC depletion from the LNAPL. In addition, the AF EBR modeling efforts assumed site-wide uniformity of critical parameters (such as porosity) [< They actually did use several different permeability zones in their model; I think we can leave this sentence out]. AF did not provide-sensitivity analyses for evaluating the effect of these assumptions on remedial efficacy and timeframe scenarios to aide in evaluating the efficacy of the remedy. Therefore, the Regulatory Team has performed a detailed and extensive analysis and modeling effort to better capture the variability of physical, chemical and biological conditions across the site, and to show the range of likely and likelihood of possible remedial efficacy and timeframe outcomes of EBR and MNA Please use our modeled Time of Remediation estimates provided on May 30, 2017 as a example. ST12 Joint agency EBR model cover letter.pdf; TOR Estimates\_ST012\_052217.pdf; BIONAPL Box Model revised 04-27-2017 UWBZ.xls].

## Line 26:

Modeling to date by the AF has not been sufficiently documented to allow an independent check on the results. Please see our previous comments (Techlaw memo dated March 24, emailed on April 11, 2017, and Time of Remediation estimates provided on May 30, 2017). The Regulatory Agencies technical team has sent a list of these deficiencies to AF. The word deficiency might also create negative reaction. Rathe,r reference previous comments and specify what the modeling effort need to address.

Carolyn d'Almeida Remedial Project Manager Federal Facilites Branch (SFD 8-1) US EPA Region 9 (415) 972-3150

"Because a waste is a terrible thing to mind..."

From: Jennings, Eleanor [mailto:Eleanor.Jennings@parsons.com]

Sent: Thursday, June 15, 2017 6:58 AM

To: d'Almeida, Carolyn K. <dAlmeida.Carolyn@epa.gov>; Davis, Eva <Davis.Eva@epa.gov>

Cc: Steve Willis <steve@uxopro.com>; Wayne Miller <Miller.Wayne@azdeq.gov>

Subject: Draft Williams AFB Checklist, Version 10

Good morning, Carolyn and Eva

Attached is the latest version, which incorporates the comments that came in yesterday. Looking at the comments that came in, it didn't sound to me like final decisions had been reached on a few items. Thus, there are 5 cells that are still unresolved – all in the "additional comments" section, and most involving the modeling.

In an ideal world, a conference call should be able to allow for immediate communication between the team members (as opposed to email responses), and thus should be much faster at resolving these five items.

An idea would be to give the team this afternoon to take one last look at the checklist, with instructions that a call Friday (tomorrow) morning has the spoken goal of being the last of the discussion on the checklist, and after the call it will be considered to be in final form. In other words, speak now or forever hold your peace. © This puts the entire team on notice that it's time to focus and resolve the remaining five items. Just a thought .... I'm just trying to balance getting the helpful input from the team with getting a finalized version to you and Lauren for distribution.

Take a look and let me know what you think.

Thanks,

E

Eleanor M. Jennings, M.S., PhD
Principal Scientist - Environmental Microbiology and Biogeochemistry
Eleanor.Jennings@Parsons.com
202.302.9996

"Safety Isn't Expensive. It's Priceless."